Ordering number: EN 2719
查询2SK1067供应商

SANYO

No.2719

# 2SK1067

N-Channel MOS Silicon FET

## FM Tuner,VHF-Band Amp Applications

**Features**

- Low noise NF=1.8dB typ(f=100MHz)
- High power gain PG=27dB typ(f=100MHz)
- Small reverse transfer capacitance $c_{rss}$=0.035pF($V_{DS}$=10V,f=1MHz)
- Very small-sized package(MCP) permitting 2SK1067-applied sets to be made smaller and slimmer

**Absolute Maximum Ratings** at Ta=25°C

| | | | unit |
|---|---|---|---|
| Drain to Source Voltage | $V_{DS}$ | 16 | V |
| Gate to Source Voltage | $V_{GS}$ | ±5 | V |
| Drain Current | $I_D$ | 30 | mA |
| Allowable Power Dissipation | $P_D$ | 150 | mW |
| Channel Temperature | Tch | 125 | °C |
| Storage Temperature | Tstg | −55 to +125 | °C |

**Electrical Characteristics** at Ta=25°C

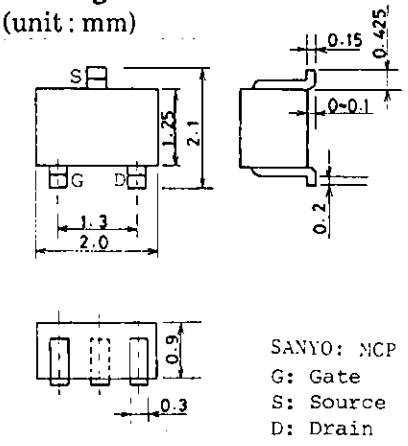
| | | | min | typ | max | unit |
|---|---|---|---|---|---|---|
| Drain to Source Voltage | $V_{DSX}$ | $V_{GS}$=−4V,$I_D$=100μA | 16 | | | V |
| Gate Cutoff Current | $I_{GSS}$ | $V_{DS}$=0V,$V_{GS}$=±5V | | | 10 | nA |
| Drain Current | $I_{DSS}$ | $V_{DS}$=10V,$V_{GS}$=0 | ※1.2 | | ※12.0 | mA |
| Gate to Source Cutoff Voltage | $V_{GS(off)}$ | $V_{DS}$=10V,$I_D$=100μA | | | −2.5 | V |
| Forward Transfer Admittance | $\|y_{fs}\|$ | $V_{DS}$=10V,$V_{GS}$=0,f=1kHz | | 11 | | mS |
| Input Capacitance | $c_{iss}$ | $V_{DS}$=10V,$V_{GS}$=0,f=1MHz | | 2.3 | | pF |
| Reverse Transfer Capacitance | $c_{rss}$ | $V_{DS}$=10V,$V_{GS}$=0,f=1MHz | | 0.035 | | pF |
| Power Gain | PG | $V_{DS}$=10V,$V_{GS}$=0,f=100MHz<br>See specified Test Circuit. | | 27 | | dB |
| Noise Figure | NF | $V_{DS}$=10V,$V_{GS}$=0,f=100MHz<br>See specified Test Circuit. | | 1.8 | 3.0 | dB |

※ : The 2SK1067 is classified by $I_{DSS}$ as follows (unit : mA) :

| | | |
|---|---|---|
| 1.2 3 3.0 | 2.5 4 6.0 | 5.0 5 12.0 |

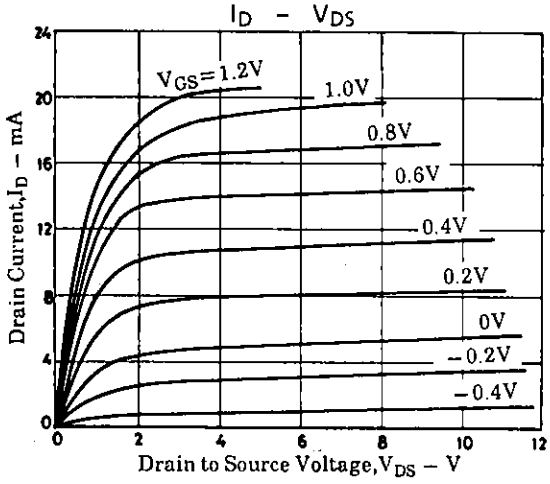
(Note) Marking : CJ
$I_{DSS}$ rank : 3,4,5

**Package Dimensions** 2057
(unit : mm)

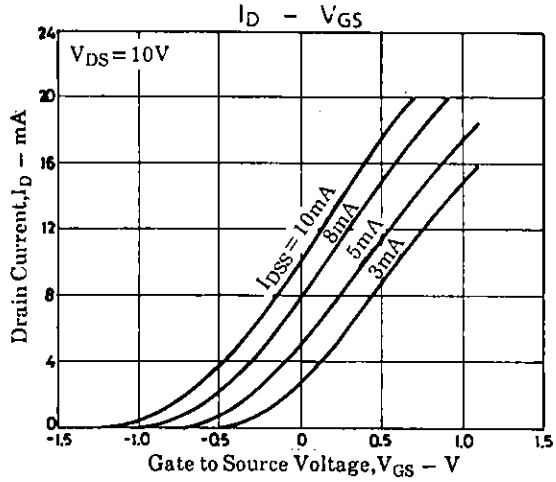



SANYO: MCP
G: Gate
S: Source
D: Drain

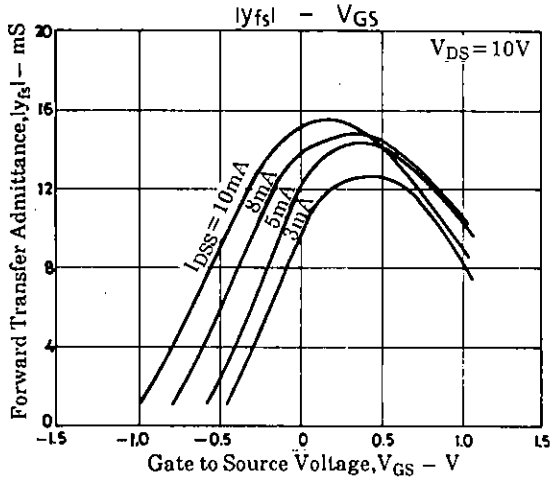
$I_D$ – $V_{DS}$



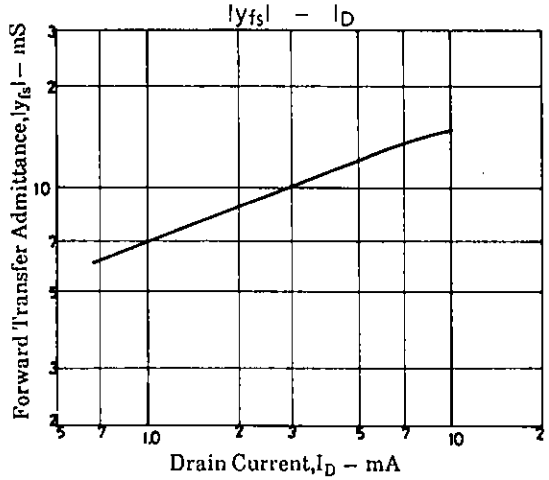

$I_D$ – $V_{GS}$



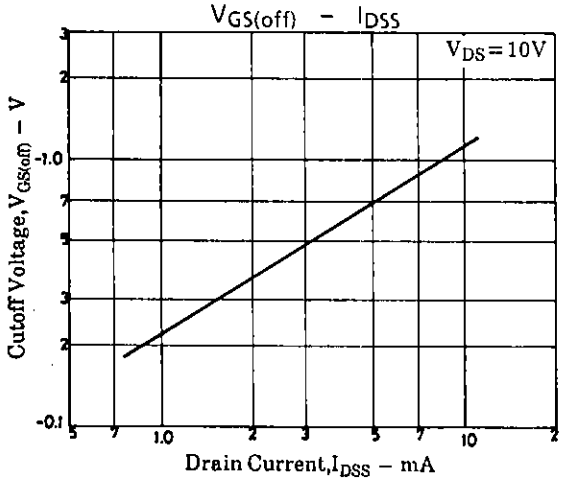

$|y_{fs}|$ – $V_{GS}$



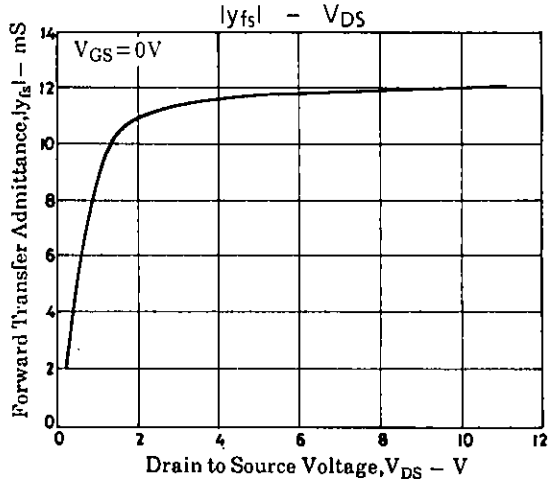

$|y_{fs}|$ – $I_D$



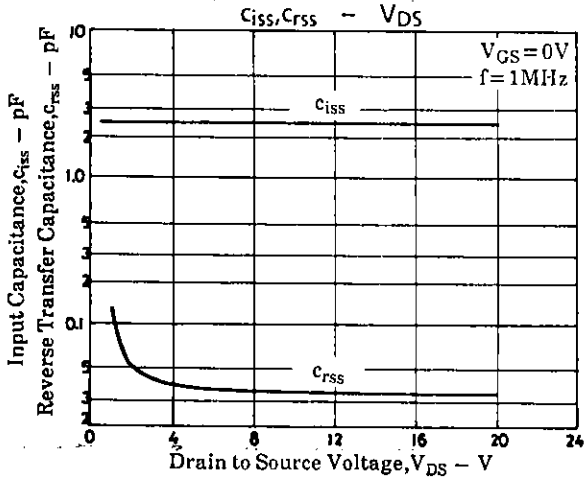

$V_{GS(off)}$ – $I_{DSS}$



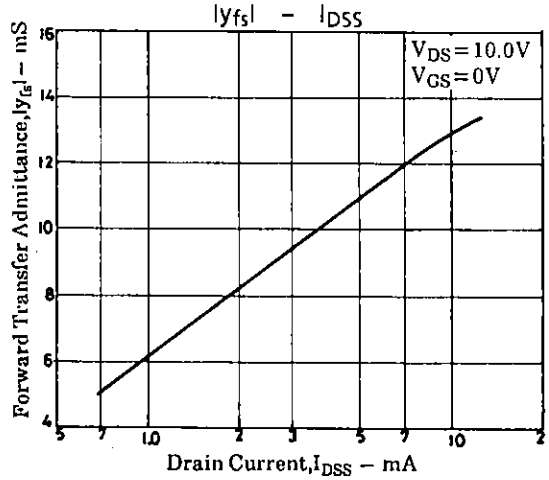

$|y_{fs}|$ – $V_{DS}$



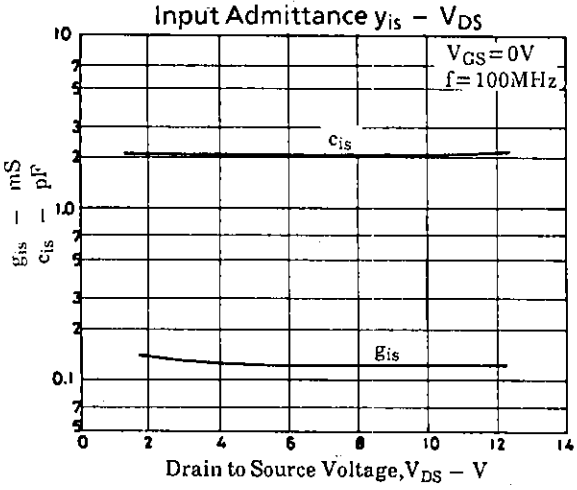

$C_{iss}$, $C_{rss}$ – $V_{DS}$



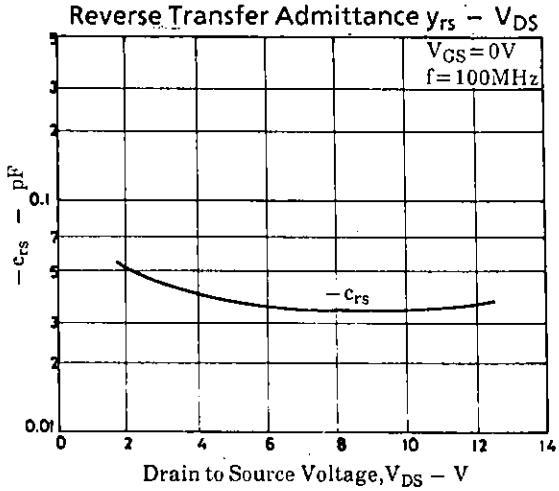

$|y_{fs}|$ – $I_{DSS}$



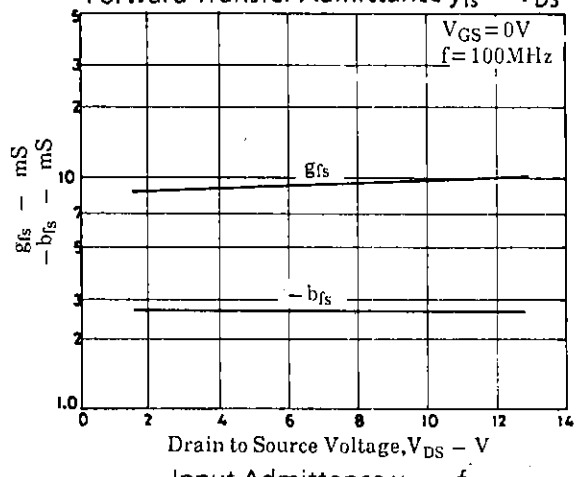
Input Admittance $y_{is}$ – $V_{DS}$



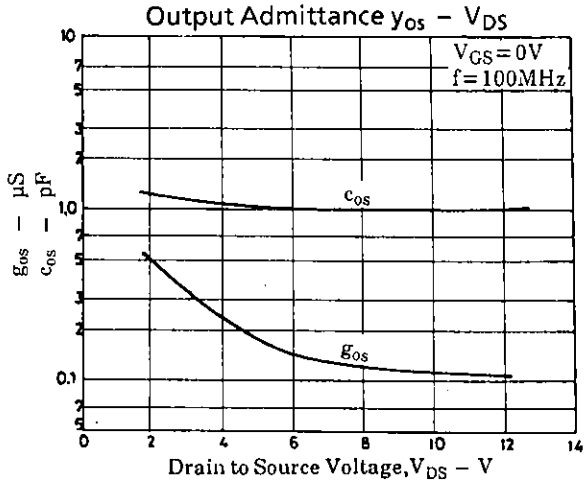

Reverse Transfer Admittance $y_{rs}$ – $V_{DS}$



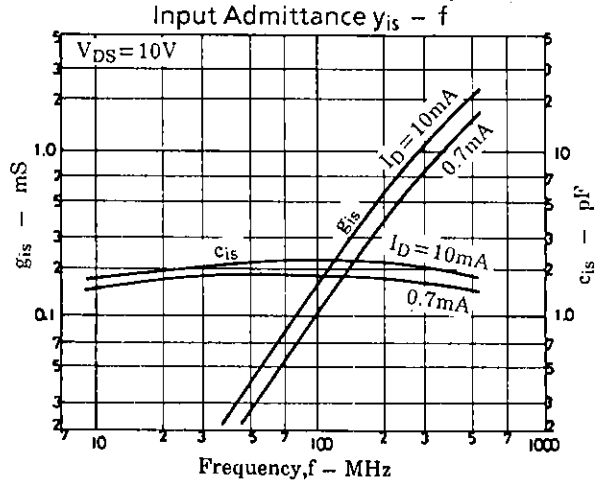

Forward Transfer Admittance $y_{fs}$ – $V_{DS}$



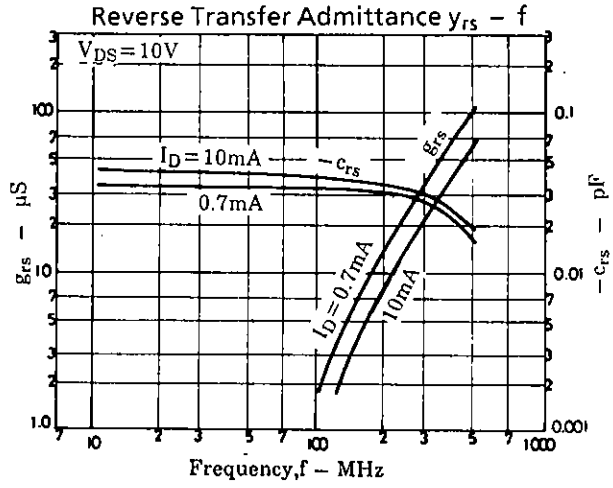

Output Admittance $y_{os}$ – $V_{DS}$



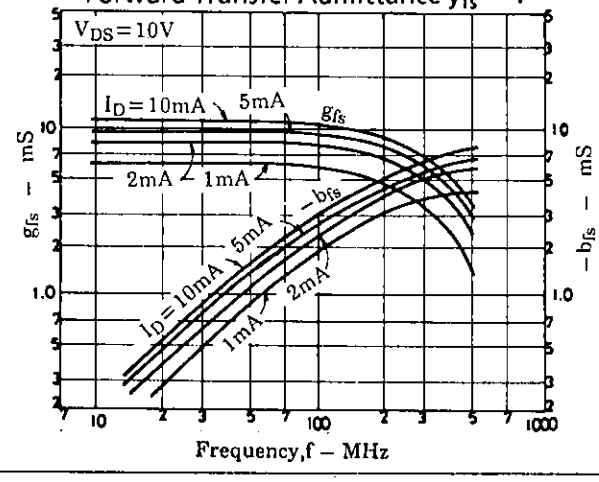

Input Admittance $y_{is}$ – f



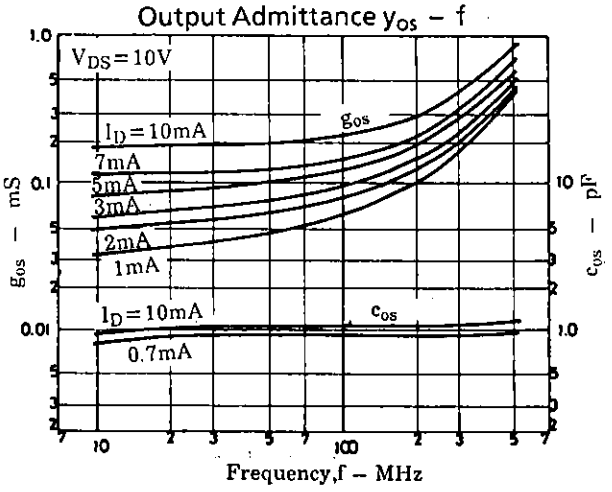

Reverse Transfer Admittance $y_{rs}$ – f

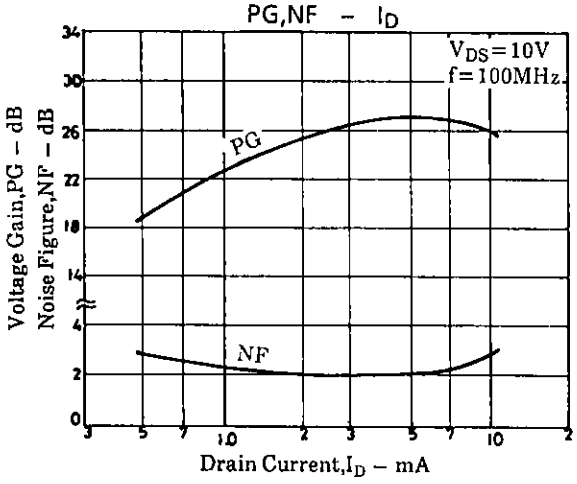


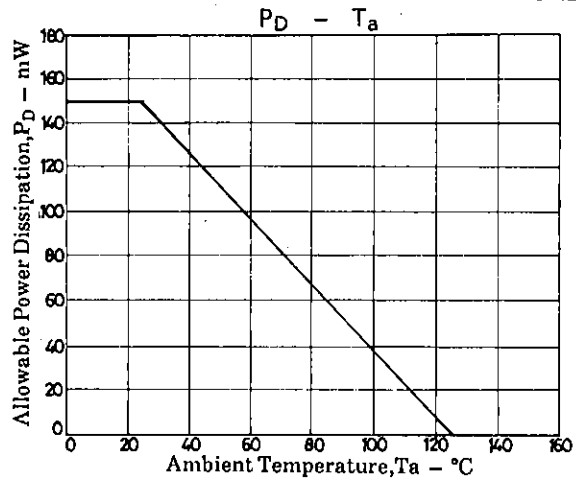

Forward Transfer Admittance $y_{fs}$ – f



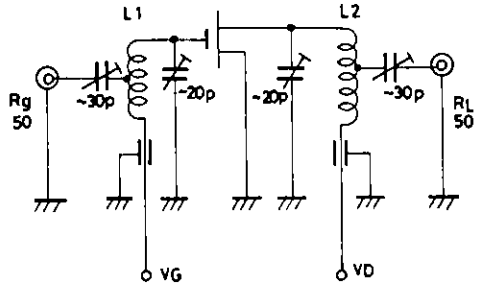

Output Admittance $y_{os}$ – f






## PG,NF Test Circuit




L1 : 1.0mm$^{\varnothing}$ plated wire, 10mm$^{\varnothing}$ 6T, tap : 3T from H side
L2 : 1.0mm$^{\varnothing}$ plated wire, 10mm$^{\varnothing}$ 7T, tap : 4T from H side

Unit (Resistance : Ω, Capacitance : F)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